

CLAIMS

1. A construction engineering machine (1) of the loader type, comprising a chassis (5) and work
5 equipment (2) which includes:
- two parallel arms (3) articulated with respect to the chassis (5);
 - a bucket (15) articulated with respect to the arms (3);
 - 10 • a set of link rods (20, 21) forming, with a portion of the bucket (15) and of the arms (3), a deformable parallelogram;
 - a bucket actuator (27) designed to be controlled in order to cause deformation of the deformable
15 parallelogram so as to orientate the bucket (15) with respect to the arms (3),
- characterized in that it also comprises:
- a hydraulic control circuit allowing the bucket actuator (27) to be supplied via a directional
20 control valve (55) controlled by a hydraulic manipulator (58) delivering a control pressure;
 - a cam mechanism (35) moved by a connecting bar (30) connected by one end (31) to the deformable parallelogram so that the position of the cam (35) is
25 dependent on the orientation of the bucket (15) with respect to the chassis (5);
 - a hydraulic device (52) allowing the generation of an additional control pressure according to the position of the cam (35);
 - 30 • a circuit selector (54) able to transmit to the directional control valve (55) the higher of the control pressure delivered by the manipulator (58) and the additional control pressure,
- so that the orientation of the bucket (15) is kept in a
35 position that prevents its unwanted tipping backward, regardless of the commands exerted on the manipulator (58) by the driver.

2. The machine as claimed in claim 1, characterized in that the circuit selector (54) is arranged on the fraction of the hydraulic control circuit concerned with the tipping-out of the bucket (15).